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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/478,849	01/06/2000	SHAWN L. KELLY	CIC-037-US	2262
26659	7590	05/26/2005	EXAMINER	
RAGGIO & DINNIN, P.C. 2701 CAMBRIDGE COURT, STE. 500 AUBURN HILLS, MI 48326			NGUYEN, THONG Q	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/478,849

Applicant(s)

KELLY, SHAWN L.

Examiner

Thong Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-43 and 46-87 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-31, 46-56, 70, 71, 74, 75 and 78-87 is/are allowed.
- 6) ☒ Claim(s) 32-43, 57-69, 72, 73, 76 and 77 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/15/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The present Office action is made in response to the new oath, and the amendment filed on 5/15/2004.
2. It is noted that in the mentioned amendment, applicant has made changed to the specification and the claims. Regarding to the claims, applicant has amended claims 32-33, 66, 70-71 and 74 and simultaneously added a new set of claims, i.e., claims 76-87, into the present application. A review of the newly-added claims has resulted that the device/method of the newly-added claims have the similar scope as those of the amended claims and thus, all pending claims 1-43 and 46-87 are examined in this Office action.

### ***Reissue Applications***

3. Applicant is reminded of the continuing obligation under 37 CFR 1.178(b), to timely apprise the Office of any prior or concurrent proceeding in which Patent No. 5,706,137 is or was involved. These proceedings would include interferences, reissues, reexaminations, and litigation.

Applicant is further reminded of the continuing obligation under 37 CFR 1.56, to timely apprise the Office of any information which is material to patentability of the claims under consideration in this reissue application.

These obligations rest with each individual associated with the filing and prosecution of this application for reissue. See also MPEP §§ 1404, 1442.01 and 1442.04.

4. The original patent, or an affidavit or declaration as to loss or inaccessibility of the original patent, must be received before the reissue application can be allowed. See 37 CFR 1.178.

5. The new oath/declaration of the present reissue application is received by the Office on 05/15/2004. The newly-filed oath/declaration is sufficient to overcome the rejection of claims 1-43 and 46-75, now applied to claims 1-43 and 46-87 under 35 U.S.C. 251 as set forth in the previous Office action.

#### ***Specification***

6. The lengthy specification which is amended by the Amendment of 5/15/2004 has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Claim Objections***

7. Claim 78 is objected to because of the following informalities. Appropriate correction is required.

In claim 78: on line 5, the phrase thereof "a re-imaging...said first image, wherein and said" contains a grammatical error. Should the terms "wherein and said" be changed to --wherein said--?

#### ***Allowable Subject Matter***

8. The indicated allowability of claims 57-65 is withdrawn in view of the a further view of the device claimed in claims 38-39, 57 and the teaching provided in columns

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13+ of the U.S. Patent No. 5,187,597. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 32-43, 57-69, 72-73 and 76-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (U.S. Patent No. 4,669,810) in view of Kato et al (U.S. Patent No. 5,187,597) and Opitek et al (U.S. Patent No. 3,915,548) (all of record).

Wood discloses an optical system having an information source in the form of a cathode-ray-tube (20), a means (26) including a plurality of lens elements for forming an intermediate image (54) of the information source, a reflective holographic element (28) disposed near the intermediate image for reflecting the image towards an optical system (32,34,36) for re-imaging the intermediate image for the purpose of providing an image to an observer. It is also noted that the optical system for re-imaging as described by Wood at column 3 will provide a virtual image of the intermediate image to the observer through an exit pupil viewable by the eyes of the observer. See Wood, columns 3-4 and 6-7 and figs. 2-4. It is also noted that the holographic element (28) has a curved surface and used to correct for the aberrations caused by the re-imaging means as can be seen in columns 3-4 and 6. While Wood teaches the arrangement of the holographic element (28) near the position of the intermediate image formed by the imaging means (26), he does not clearly state that the position of the holographic element is located proximately to the position of the intermediate image as claimed. However, the use of an information

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source, a means for forming an image of the source, and a curved reflecting element at the position of the intermediate image is suggested to one skilled in the art as can be seen in the optical system provided by Kato et al. See column 8 and fig. 9.

Regarding to the feature that the light redistributing means comprises a light redistributing screen as recited in claim 57 and now newly-added to claims 32, 33, and 66, such a feature is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present claims 38-39 in which applicant has disclosed that the redistributing means is selected from a group having a holographic element. Further, it is noted that the feature related to a so-called "screen " is provided by Kato et al as can be seen in columns 13+ in which Kato et al disclose a holographic screen (61). It is also noted that the present claims have not recited any specific limitations related to the structure of the light redistributing screen. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the optical system provided by Wood by rearranging the position of the holographic element (28) at a position proximately or on the position of the intermediate image formed by the imaging means as suggested by Kato et al for the purpose of providing an image with better focus and brightness while still maintaining the function of correcting the image aberrations occurred by the imaging means and the re-imaging means in the system.

With regard to the feature concerning the type of the source for providing light to the imaging means. In other words, while Kato et al discloses the use of an information source, and Wood discloses that the image source is a cathode-ray-tube, both Wood

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and Kato et al do not clearly state the information source can be a source which provides a modulated scanning light. However, the feature concerning the type of the information source as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for this conclusion is found in the present specification at column 4 (lines 20-23) in which applicant has admitted that the information source can be a cathode-ray-tube or a liquid crystal display. In this aspect, each the optical apparatus of Kato et al or Wood meets the requirement. Furthermore, the use of an information source in the form of a source providing modulated scanning light in place of a cathode-ray-tube is known to one skilled in the art as can be seen in the optical system provided by Opitek et al. In particular, at column 6 (lines 64-68), Opitek et al teach that the image source can be a cathode-ray-tube or a modulated laser scanning system. Thus, absent any showing of criticality as well as the specific structure of the image source in the form of the modulated scanning light source, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined product as provided by Wood and Kato et al by using a modulated laser scanning system or other information source known to one skilled in the art in the system of Kato for the purpose of satisfying a particular application or for the purpose of providing a system with better optical performance.

### ***Response to Arguments***

11. Applicant's arguments filed on 5/15/2004 have been fully considered but they are not persuasive.

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Applicant has argued that the art of record does not disclose that the light redistributing means is a light redistributing screen as is now claimed. The Examiner respectfully disagrees and respectfully invited the applicant to review the art of Kato et al. Regarding to the feature that the light redistributing means comprises a light redistributing screen as recited in claim 57 and now newly-added to claims 32, 33, and 66, such a feature is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present claims 38-39 in which applicant has disclosed that the redistributing means is selected from a group having a holographic element. Further, it is noted that the feature related to a so-called "screen " is provided by Kato et al as can be seen in columns 13+ in which Kato et al disclose a holographic screen (61). It is also noted that the present claims have not recited any specific limitations related to the structure of the light redistributing screen

***Allowable Subject Matter***

12. Claims 1-31, 46-56, 70-71, 74-75 and 78-87 are allowed.

***Conclusion***

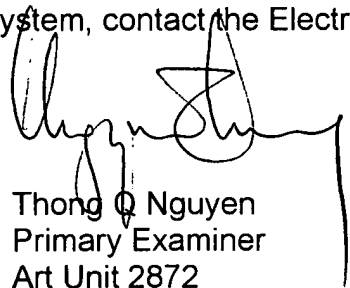
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Nguyen  
Primary Examiner  
Art Unit 2872

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